Amendments to the Claims:

This listing of the claims will replace all prior versions, and listings, of the claims in the application:

1   1.   (currently amended) A method for optimizing response time of physical devices
2   in a data storage system comprising:
3   collecting statistics for each of the physical devices;
4   determining from the statistics the *n* most active of the physical devices; and
5   for each of the *n* most active of the physical devices, adjusting a mirror service
6   policy associated with one or more mirrored logical volumes serviced by the physical
7   device to reduce seek time.

1   2.   (original) The method of claim 1, wherein the statistics include utilization and
2   wherein adjusting is performed if the utilization of the physical device is greater than a
3   threshold value.

1   3.   (original) The method of claim 1, wherein adjusting comprises:
2   using a cost function analysis to determine that workload assigned to the one or
3   more selected mirrored logical volumes according to a current mirror service policy can
4   be re-assigned to a corresponding mirrored copy according to a new mirror service
5   policy, the cost function analysis indicative of seek time and involving the selected
6   physical device and any physical device on which a mirrored copy resides.

1   4.   (original) The method of claim 3, wherein the physical devices involved in the
2   cost function analysis are physical mirrors.

1   5.   (original) The method of claim 3, wherein using comprises;
2   computing cost functions for each of the physical devices involved in the cost
3   function analysis and determining a maximum value from the computed cost functions,
4   based on the current mirror service policy and the new mirror service policy.

5

1　6.　(original) The method of claim 5, wherein using comprises:
2　　　determining that the reassignment of workload can be made if the maximum value
3　based on the new mirror service policy is less than the maximum value based on the
4　current policy.

1　7.　(original) The method of claim 6, wherein adjusting comprises processing the one
2　or more logical volumes in a sequence beginning with the outermost logical volume
3　bordering logical volumes serviced by another physical device.

1　8.　(original) The method of claim 7, wherein, for each successive one of the
2　processed logical volumes, the new mirror service policy of an immediate predecessor of
3　the processed logical volumes is used as the current mirror service policy for the cost
4　function analysis.

1　9.　(original) The method of claim 2, wherein the threshold value comprises fifty
2　percent.

1　10.　(currently amended) A computer program product residing on a computer
2　readable medium for optimizing response time of physical devices in a data storage
3　system, comprising instructions for causing a computer to:
4　　　collect statistics for each of the physical devices;
5　　　determine from the statistics the n most active of the physical devices; and
6　　　for each of the n most active of the physical devices, adjust a mirror service policy
7　associated with a mirrored logical volume services by the physical device to reduce seek
8　time.

1　11.　(original) A data storage system comprising:
2　　　physical devices having mirror logical volumes stored thereon;
3　　　a storage controller for controlling access to the physical devices; and
4　　　wherein the storage controller collects for the physical devices statistics including
5　utilization and, for each of n of the most active of the physical devices, adjusts mirror

6

6   service policy associated with a mirrored logical volume serviced by the physical device

7   to minimize seek time when the utilization is greater than a threshold value.

1   12.   (new) The computer program of claim 10 wherein the mirror service policy is

2   adjusted in response to simulation of a new mirror service policy.

1   13.   (new) The computer program of claim 12 wherein the mirror service policy is

2   adjusted in response to a cost function analysis of the selected physical device as a result

3   of a current mirror service policy and a cost function analysis of the selected physical

4   device as a result of the new mirror service policy.

1   14.   (new) The computer program of claim 11 wherein the mirror service policy is

2   adjusted in response to simulation of a new mirror service policy.

1   15.   (new) The computer program of claim 14 wherein the mirror service policy is

2   adjusted in response to a cost function analysis of the selected physical device as a result

3   of a current mirror service policy and a cost function analysis of the selected physical

4   device as a result of the new mirror service policy.

7